



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,169	09/30/2003	Masao Fujiki	04329.3152	9806
7590 01/06/2005 Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 1300 I Street, N.W. Washington, DC 20005-3315			EXAMINER OLSON, JASON C	
			ART UNIT 2651	PAPER NUMBER

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/673,169	Applicant(s) FUJIKI ET AL.	
	Examiner Jason C Olson	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/30/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-11, and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (US 6,771,449) referred to as Ito.

Regarding claim 1, Ito teaches a disk device having a head (see col. 3, ln. 61-67), a sensor which detects fall (see col. 3, ln. 53-60), and a control unit configured to control the disk device to move the head to an unload area (see col. 4, ln. 3-5) using a signal which is independent from commands that are processed by the disk device in an order which they are accepted, when the sensor detects the fall (see col. 6, ln. 39-50).

Regarding claim 2, Ito teaches the device is a magnetic device, and the head is a magnetic head (see col. 3, ln. 61-67).

Regarding claims 3 Ito teaches the signal is a reset signal of an interface standard with which the disk device complies (see col. 6, ln. 39-50; it is understood by the examiner that Ito teaches a reset signal as described by the applicant on page 12, lines 13-18 of the instantaneous specification).

Regarding claim 4, Ito teaches an independent signal line configured to exchange the signal (see figure 11, the inner circuit has an independent line to transport an independent

Art Unit: 2651

signal), and wherein the control unit transmits the signal to the disk device via the independent signal line (see col. 6, ln. 39-50).

Regarding claim 5, Ito teaches a shock-absorbing unit which absorbs a shock that acts upon falling from a height (h) when a time required to move the head to the unload area under the control of the control unit is given by a falling time (t), satisfies an active-time shockproof specification of the disk device (see col. 5, ln. 29-46; it is understood by the examiner that Ito teaches an active-time shockproof specification as described by the applicant on page 8, lines 15-20 of the instantaneous specification).

Regarding claim 7, Ito teaches the sensor is an agravity sensor using a mechanical switch, which is opened, in an agravity state (see col. 4, ln. 16-24, figures 3 and 4; it is understood by the examiner that Ito teaches an agravity sensor as described by the applicant on page 10, lines 4-6 of the instantaneous specification).

Regarding claims 8-11 and 13: claims 8-11 and 13 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

Regarding claims 14-16: method claims 14-16 are drawn to the method of using the corresponding apparatus claimed in claims 1-5 and 7. Therefore method claims 14-16 correspond to apparatus claims 1-5 and 7 and are rejected for the same reasons of anticipation as used above.

Regarding claims 17-19: method claims 17-19 are drawn to the method of using the corresponding apparatus claimed in claims 8-11 and 13. Therefore method claims 17-19 correspond to apparatus claims 8-11 and 13 and are rejected for the same reasons of anticipation as used above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito.

Regarding claims 6 and 12, Ito teaches all the limitations of claims 1 and 8 above. Ito further teaches the relationship between the falling time (t) and the height (h) is defined by:
$$t = (2h/G)^{1/2}$$
 (G: gravitational acceleration) (see col. 5, ln. 47-67; it is obvious to an artisan in the art that the relationship between falling time and the height can be manipulated as described by Ito).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wehrenberg (US 6,520,013) is cited for detecting free fall. Kelsic (US 6,046,877) is cited for hard drive unit of a portable computer. Juckenack et al, (US 5,027,657) is cited for an acceleration sensor with cantilevered bending beam.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C Olson whose telephone number is 703.305.8325. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

Art Unit: 2651

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703)308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCO
December 29, 2004


SINH TRAN
SUPERVISORY PATENT EXAMINER